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## **CLAIMS:**

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What is claimed is:

1. A method comprising:

receiving information for transmission to a receiver; and

generating a plurality of sub-carriers to redundantly transmit the information to a user

over a multi-carrier wireless communication channel, wherein each of the sub-carriers is

modified by a set of complex weights to ensure that each of the sub-carriers of the wireless

communication channel propagates along a different physical path to the receiver.

2. A method according to claim 1, wherein each element of the set of complex weights scales one or more of a sub-carriers amplitude and/or phase at an associated transmission antenna.

3. A method according to claim 1, wherein developing a set of complex weights comprises: choosing substantially different weights for each sub-carrier sharing information; and iteratively repeating until all sub-carriers have been modified.

4. A method according to claim 3, wherein the substantially different weights are chosen to be orthogonal to the others.

5. A method according to claim 3, wherein developing a set of complex weights comprises: selecting weight vector(s) to be applied to each of the sub-carriers from a pre-determined set of weight vectors.

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1	6.	A method according to claim 1, further comprising:	
2		transmitting the modified sub-carriers through one or more antenna(e) to the receiver.	
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1	7.	A transceiver comprising:	
2		a diversity agent, to selectively develop and apply a set of complex weight values to each	
3	of a plurality of signals, each corresponding to a sub-carrier of a multi-carrier communication		
4	channel, to introduce spatial diversity between such sub-carriers; and		
5		a transmit module, coupled with the diversity agent, to receive the modified sub-carriers	
6	and transmit the signals to generate a multi-carrier communication channel with intra-channel		
7	spatial diversity.		
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1	8.	A transceiver according to claim 7, wherein the plurality of signals received from at the	
2	diversi	ty agent are baseband signals.	
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1	9.	A transceiver according to claim 7, wherein the multi-carrier communication channel is	
2	compr	ised of a plurality of sub-carrier signals, each having a disparate set of complex weights	
3	introdu	aced at a baseband of the sub-carriers to effect the spatial diversity between the sub-	
4	carrier	s.	
1		$oldsymbol{\gamma}$	
1	10.	A transceiver according to claim 7, wherein each of the set of complex weights are	
2	compr	ised of a plurality of weight values each associated with one of a plurality of antennae	
3	compr	ising an antenna array through which the sub-carriers are transmitted.	

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A transceiver according to claim 10, wherein the diversity agent develops the set of 11.

complex weight values for a given baseband signal to be maximally orthogonal complex weight 2

values applied to another baseband signal. 3

12. A transceiver according to claim 10, wherein the diversity agent develops the set of 1

complex weight vectors for a sub-carrier that are substantially different from weight vectors 2

modifying other sub-carriers that include at least a subset of information carried by the sub-3

carrier.

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13. A transceiver according to claim 7, wherein the transmit module upconverts and

amplifies each of the modified baseband signals to generate a plurality of spatially diverse sub-

carriers.

14. A transceiver according to claim 13, wherein the transmit module transmits each of the

sub-carriers to one or more receiver(s).

15. A transceiver according to claim 7, further comprising:

a memory having stored therein content; and

control logic, coupled to the memory, to access and process at least a subset of the

content to implement the diversity agent.